AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application

Listing of Claims:

1. (Withdrawn) A method for maintaining hydrogen purity in an electrical generator, the system comprising: monitoring the purity of the hydrogen in the generator; generating a signal in response to said purity falling below a predetermined threshold; adding hydrogen gas in response to said signal; venting hydrogen gas from said generator.

2. (Withdrawn) The method of claim 1 further comprising the step of continuing to add hydrogen gas and vent hydrogen from the generator until the purity of the hydrogen in the generator exceeds a predetermined threshold.

3. (Withdrawn) The method of claim 2 further comprising the step of opening a valve to vent gas from said generator in response to said purity signal.

4. (Withdrawn) The method of claim 3 wherein said predetermined purity threshold is greater than 90%.

5. (Withdrawn) The method of claim 4 wherein said predetermined purity threshold is greater than 95%.

6. (Withdrawn) The method of claim 5 wherein said predetermined purity threshold is 98%.

7. (Withdrawn) The method of claim 2 further comprising the step of activating a hydrogen generator in response to said purity signal.

8. (Withdrawn) The method of claim 7 further comprising the step of venting gas from

said generator if the pressure exceeds a predetermined threshold.

9. (Withdrawn) The method of claim 8 further comprising the steps of providing a second purity signal in response to the purity in the generator exceeding a predetermined threshold, and stopping production of hydrogen gas in response to said second purity signal.

10. (Original) A system for maintaining hydrogen purity in an electrical generator, the system comprising:

a hydrogen generator;

an electrical generator coupled to said hydrogen generator;

a valve coupled to said electrical generator;

a purity monitor operably coupled to said generator and said valve.

11. (Original) The system of claim 10 wherein said valve operates to release hydrogen gas from said electrical generator in response to a signal from said purity monitor.

12. (Original) The system of claim 11 wherein said hydrogen generator is configured to generate hydrogen gas at a predetermined pressure, said hydrogen generator producing hydrogen gas in response to a reduction in pressure in said electrical generator.

13. (Original) The system of claim 12 wherein said hydrogen generator is an electrochemical generator having at least one polymer electrode membrane.

14. (Original) The system of claim 12 wherein said hydrogen generator produces hydrogen gas by reformation of natural gas.

15. (Original) The system of claim 13 further comprising a pressure monitor.

16. (Original) The system of claim 15 further comprising a hydrogen purifier coupled to said generator.

17. (Original) The system of claim 12 wherein said purity monitor provides a signal to

said valve when the purity of hydrogen gas in said electrical generator is less than 99% pure.

18. (Original) The system of claim 12 wherein said purity monitor provides a signal to said valve when the purity of hydrogen gas in said electrical generator is less than 95% pure.

19. (Withdrawn) A system for maintaining hydrogen purity in an electrical generator, the system comprising: an electrical generator; a valve coupled between said electrical generator and a vent, said valve being configured to vent hydrogen gas at a predetermined vent rate; and, a hydrogen generator coupled to said electrical generator.

20. (Withdrawn) The system of claim 19 wherein said hydrogen generator is configured to produce hydrogen at a predetermined production rate.

21. (Withdrawn) The system of claim 20 wherein said predetermined production rate substantially equals said predetermined vent rate.

22. (Withdrawn) The system of claim 20 further comprising a purity monitor coupled to said electrical generator and said valve, said valve changing said predetermined vent rate in response to a signal from said purity monitor.

23. (Withdrawn) The system of claim 22 wherein said hydrogen generator is configured to vary said predetermined production rate to substantially match said predetermined vent rate.

24. (Withdrawn) The system of claim 20 said hydrogen generator is an electrochemical generator having at least polymer electrode membrane.

25. (Withdrawn) The system of claim 20 wherein said hydrogen generator produces hydrogen gas by reformation of natural gas.

26. (Withdrawn) The system of claim 21 wherein said predetermined vent rate is set to maintain a purity of hydrogen gas in said electrical generator at greater than 98% pure.

27. (Withdrawn) The system of claim 26 wherein said predetermined vent rate is set to maintain a purity of hydrogen gas in said electrical generator at greater than 95% pure.

28. (Original) A system for maintaining hydrogen purity in an electrical generator, the system comprising:

a hydrogen generator;

an electrical generator coupled to said hydrogen generator;

a valve coupled to said electrical generator, said valve being configured to release hydrogen gas from said electrical generator at a predetermined hydrogen gas pressure level;

a purity monitor operably coupled to said electrical generator and said hydrogen generator.

29. (Original) The system of claim 28 wherein said hydrogen generator produces hydrogen gas at predetermined rate in response to a signal from said purity monitor.

30. (Original) The system of claim 28 wherein said valve releases hydrogen gas when the gas pressure in said electrical generator exceeds 100 psi.

31. (Original) The system of claim 29 wherein said hydrogen generator is an electrochemical generator having at least one polymer electrode membrane.

32. (Original) The system of claim 29 wherein said hydrogen generator produces hydrogen gas by reformation of natural gas.

33. (Withdrawn) A method for maintaining hydrogen purity in an electrical generator comprising the steps of: monitoring the purity of hydrogen gas in an electrical generator; releasing hydrogen gas from said electrical generator at a first rate; generating hydrogen gas at a second rate, wherein said second rate is substantially the equal to said first rate.

34. (Withdrawn) The method of claim 33 further comprising the step of generating a signal from said purity monitor to a valve to release said hydrogen gas.

35. (Withdrawn) The method of claim 34 wherein said purity monitor generates said signal in response to the purity of hydrogen gas in said electrical generator falling below a predetermined hydrogen purity level.

36. (Withdrawn) The method of claim 35 wherein said predetermined hydrogen purity level is less than or equal to 98%.

37. (Withdrawn) The method of claim 36 wherein said predetermined hydrogen purity level is less than 95%.

38. (Withdrawn) The method of claim 33 further comprising the step of generating a signal from said purity monitor to a hydrogen generator to generate said hydrogen gas.

39. (Withdrawn) The method of claim 38 wherein said hydrogen gas is released from said electrical generator at a predetermined pressure level.

40. (Withdrawn) The method of claim 33 further comprising the step of increasing the level of said first rate in response to a reduction of in purity of said hydrogen gas in said electrical generator.

41. (Withdrawn) The method of claim 40 further comprising the step of decreasing the level of said first rate when the purity level of said hydrogen gas in said electrical generator reaches a predetermined purity level.

42. (Withdrawn) The method of claim 41 wherein said predetermined purity level is 95%.

43. (Withdrawn) The method of claim 42 wherein said predetermined level is 98%.